

type of vegetation. In a recent article SAMPSON¹⁵ has made an excellent contribution to our knowledge of these rapidly disappearing grasslands. He found, in various parts of the state, remnants of the original prairie grasslands varying in size from strips along roadways and railways to tracts of hundreds or even thousands of acres in extent. Some of the largest areas were on the floodplain of the Mississippi River and occur even within the city limits of Chicago. The principal virgin areas were visited during the summers of 1915-18 and carefully studied.

The most notable contribution appears in a very complete explanation of the dynamics of these grasslands. Two main lines of succession are recognized, the hydrarch and xerarch, with a common climax association type in which *Andropogon furcatus* is dominant. The hydrarch succession commonly begins with an association dominated by *Scirpus fluviatilis*, succeeded by others in which *Spartina Michauxiana* or *Calamagrostis canadensis* is abundant. In the subclimax *Panicum virgatum* or *Agrostis alba* may be most conspicuous. Variations in the intermediate stages occur and are illustrated by examples.

Owing to the agricultural value of the upland prairie areas the xerarch succession is not so easily solved, although there is abundant evidence of the nature of the climax association. Mixtures of herbaceous species with few grasses seem to be the probable pioneer forms, with a mixed aggregation of grasses or a comparatively pure stand of *Andropogon scoparius* as the intermediate stage.

The present abundance of *Poa*, appearing both as the dominance of *P. pratensis* in the climax association and of *P. compressa* in the subclimax of the xerarch succession, is shown to be due to man's influence in cutting and grazing. The retrogressions due to grazing, as well as the various types of succession, are made clear by numerous diagrams, by floristic analyses of the various associations, and by an annotated list of the principal species.

A very commendable feature of the report is a non-technical summary in which the main results of the study, including the principal successions, are stated in terms intelligible to the ordinary citizen acquainted with the prairies but without botanical training. A series of excellent plates also add to the interest and value of the report.—G. D. FULLER.

Taxonomic notes.—The collection of plants made by COMPTON in New Caledonia and the Isle of Pines in 1914 is being published by various taxonomists, the first part containing the Angiosperms by RENDLE, BAKER, and MOORE.¹⁶ It includes 830 species, 230 of which are new. The ten new genera

¹⁵ SAMPSON, H. C., An ecological survey of the prairie vegetation of Illinois. Ill. Dept. Regist. and Educ. Div. Nat. Hist. Surv. Bull. 13:523-577. pls. 48-77. figs. 9. 1921.

¹⁶ A systematic account of the plants collected in New Caledonia and the Isle of Pines by Professor R. H. COMPTON in 1914. Part I. Flowering plants (Angiosperms), by RENDLE, A. B., BAKER, E. G., and MOORE, S. LEM. Jour. Linn. Soc. 45:245-417. pls. 13-24. 1921.

are as follows: *Comptonella* (Rutaceae), *Salaciopsis* (Celastrineae), *Montagueia* (Anacardiaceae), *Paracryphia* (Eucryphiaceae), *Enochoria* (Araliaceae), *Merismostigma* (Rubiaceae), *Tropalanthus* (Sapotaceae), *Depanthus* (Gesneraceae), *Adenodaphne* (Lauraceae), and *Dendrophyllanthus* (Euphorbiaceae). The largest families are Orchidaceae (60 spp.), Euphorbiaceae (60 spp.), Rubiaceae (60 spp.), and Myrtaceae (56 spp.), and they also furnish a large proportion of the novelties described.

LESTER-GARLAND¹⁷ has published a revision of the African genus *Baphia* (Leguminosae), recognizing 58 species, 3 of which are described as new. As an illustration of the recent development of our knowledge of the African flora, it may be stated that this genus is represented by 6 species in the *Genera Plantarum*.

BLATTER and HALL¹⁸ have published a new genus (*Bonnayodes*) of Scrophulariaceae from India, related to *Bonnaya*, *Ilysanthus*, and *Limnophila*, but differing from each in a decisive character.

MOORE¹⁹ has described a new genus (*Phanerocalyx*) of Oleaceae from Africa. It is represented by two species, and is most nearly related to *Strombosia*.

HUTCHINSON and PEARCE²⁰ have published a revision of the African genus *Tryphostemma* (Passifloraceae), recognizing 25 species, 6 of which are described as new. In the second volume of the *Flora of Tropical Africa* the genus was represented by a single species.

SPRAGUE²¹ has published a revision of *Belotia*, a Central American genus of Tiliaceae, recognizing 11 species, 6 of which are described as new.

GLEASON²² has presented a much needed rearrangement of the Bolivian species of *Centropogon* and *Siphocampylus* (Lobeliaceae), genera which have been very much confused, recognizing 14 species of the former genus and 26 of the latter.

WAINIO²³ has published two papers describing a collection of Japanese lichens by YASUDA. Thus far the published list includes 182 species, 94 of which are described as new.—J. M. C.

¹⁷ LESTER-GARLAND, L. V., A revision of the genus *Baphia* DC. (Leguminosae). Jour. Linn. Soc. 45:221-243. 1921.

¹⁸ Species novae Indiae orientalis. Decas I. Jour. Indian Bot. 21:44-54. 1921.

¹⁹ MOORE, S. LEM., *Alabastra diversa*. XXXIV. Jour. Botany 59:244-249. 1921.

²⁰ HUTCHINSON, J., and PEARCE, K., Revision of the genus *Tryphostemma*. Kew Bull. no. 7. 257-266. 1921.

²¹ SPRAGUE, T. A., A revision of the genus *Belotia*. Kew Bull. no. 7. 270-278. 1921.

²² GLEASON, H. A., A rearrangement of the Bolivian species of *Centropogon* and *Siphocampylus*. Bull. Torr. Bot. Club 48:189-201. 1921.

²³ WAINIO, E. A., Lichens ab A. YASUDA in Japonia collecti. Bot. Mag. Tokyo 35:45-62; 63-80. 1921.